

Date: Friday, 8/25/2006 11:20:09 AM
User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: MID TUBE ASSEMBLY
Job Number	: 28338		
Estimate Number	: 10469	Part Number	: D3391023
P.O. Number	: <i>N/A</i>	Drawing Number	: D3391 REV E
This Issue	: 8/25/2006 S.O. No. : <i>N/A</i>	Project Number	: N/A
Prsht Rev.	: NC	Drawing Revision	: E
First Issue	: <i>N/A</i> Type : LANDING GEAR	Material	: <i>N/A</i>
Previous Run	: 28337	Due Date	: 9/22/2006
Written By	: <i>[Signature]</i>	Qty:	1 Um: Each
Checked & Approved By	: <i>[Signature]</i> 06-08-25		
Comment	: Est. A 05.10.20 New Issue KJ/EC Est. B 06.02.10 ECN773 dwg rev.D EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D25001100	Skidtube Extrusion
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

SKIDTUBE EXTRUSION

Pick:

Qty	Part Number	Description	Batch
1	D2500-1-100	Extrusion	<i>B 24593 BE 06-08-31</i>

2.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
-----	----------------	-------------------------



Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Identify as D3391-023

3-Drill pilot holes using DT8796 as per Dwg D3391

4-Open float bag holes to Ø0.250" as per Dwg D3391 using DT8796D visual aid Jig

5-C'sink float bag holes as per Dwg D3391

6-Open remaining holes to Ø0.375"

7-Rmove .030" from Fwd indexing Ridge as per Dwg D3391

8-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391

9-Deburr

10-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,

11-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391 and 2 holes in section Detail "J"

012-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.250" and c'sink (20 holes) as per Dwg D3391

13-Open .375" holes to .438"

BE 06-08-31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Friday, 8/25/2006 11:20:10 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 28338

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

14-Deburr and blow out all chips from inside tube

BE 06-08-31

3.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

DP 6-8-5

4.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

M-A 06/10/19

①

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Pm '06-10-21 ①

6.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEB

Pick:

Qty	Part Number	Description	Batch
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1	D3389-1	Web	<i>B27656</i>
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A/R		Sikaflex-241/-291	<i>M102107</i>
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		Sikaflex expire date:	<i>07-01-01</i>
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Start: *06-10-21* Time: *10:15 am*

Finish: *06-10-23* Time: *8:00 am*

Pm '06-10-21 ①

7.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Bond web in place as per Dwg D3391 & QSI 015.

Adhere for 12 hours)

Pm '06-10-21 ①

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M102391

yl

06/12/07 X1

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

a.m 06/12/13 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 29 Date: 07/02/01

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Friday, 8/25/2006 11:20:10 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 28338

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

NAS1330C3KB116

Insert



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Insert

Pick:

Qty	Part Number	Description	Batch
20	NAS1330C3KB116	Insert	19349

11.0

NAS1330C3KB166

INSERT



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

RivnuT

Pick:

Qty	Part Number	Description	Batch
10	NAS1330C3KB166	Insert	100732

12.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1
Install inserts as per Dwg D3391

Y/Lan 06/12/13

13.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP
Inspect each insert using DT8821

FC 06/12/13 ①

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: N/A

28306A

FC 06 12 13 ①

15.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL
Inspection Level 21

① 07/12/01

Job Completion



U 07.07.01

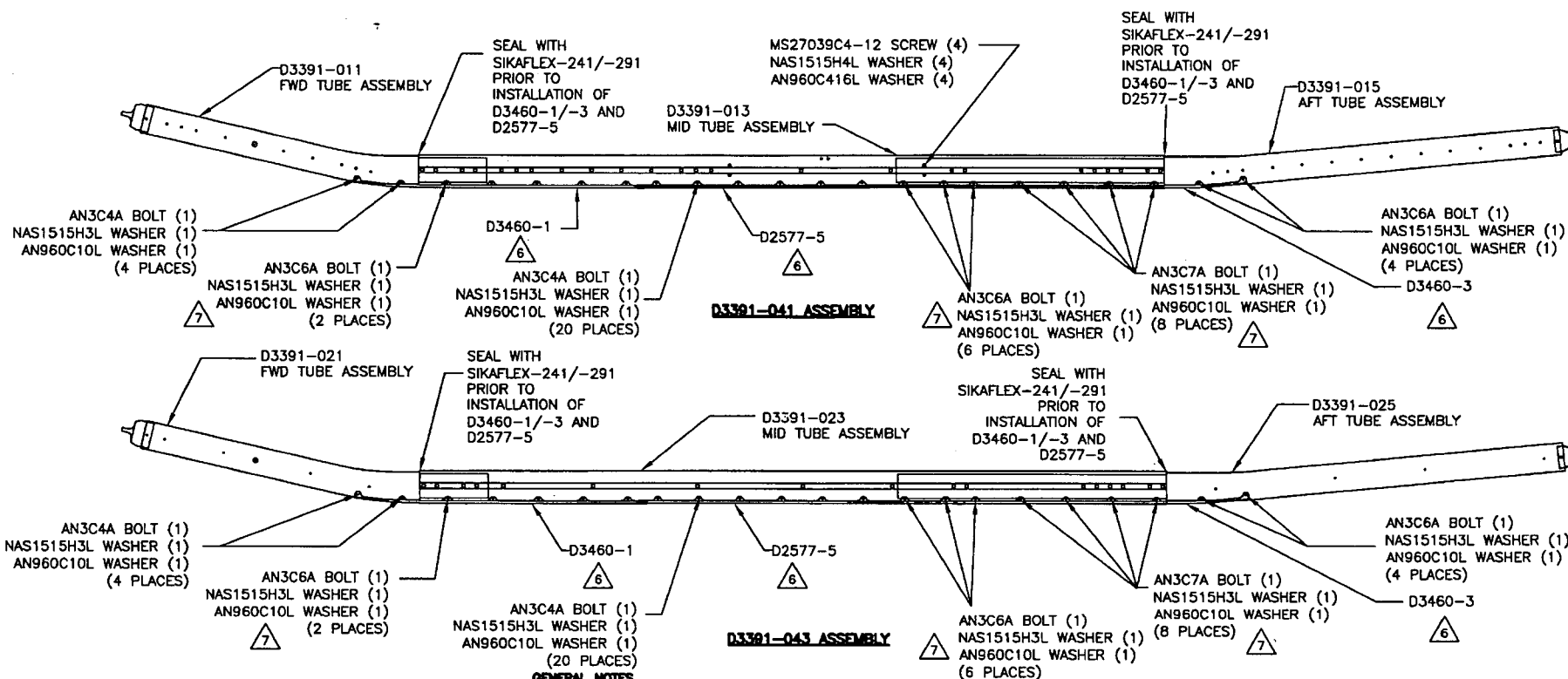
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____



GENERAL NOTES

- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 4) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL 'E' SIZE HOLES (#0.250-#0.257) FOR WEARSHOE INSERTS.
C/SINK #0.391/#0.425 x 100" AS APPLICABLE AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 6) APPLY A LAYER OF SIKAFLEX -241/-291 ADHESIVE BETWEEN THE BOTTOM OF THE SKIDTUBE ASSEMBLY AND THE WEARPLATES
- 7) DO NOT TORQUE, HAND TIGHTEN ONLY

D3391-041/-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY - 041	QTY - 043	PART NUMBER	DESCRIPTION
X	X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
		D3391-043	FLOAT SKIDTUBE ASSEMBLY
1		D3391-011	FWD TUBE ASSEMBLY
1		D3391-012	MID TUBE ASSEMBLY
1		D3391-015	AFT TUBE ASSEMBLY
	1	D3391-021	FWD TUBE ASSEMBLY
	1	D3391-023	MID TUBE ASSEMBLY
	1	D3391-025	AFT TUBE ASSEMBLY
24	24	AN3C4A	BOLT
12	12	AN3C6A	BOLT
8	8	AN3C7A	BOLT
44	44	NAS1515H3L	WASHER
44	44	AN960C10L	WASHER
4		MS27039C4-12	SCREW
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER
1	1	D2577-5	WEARSHOE
1	1	D3460-1	WEARSHOE
1	1	D3460-3	WEARSHOE

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WORK ORDER
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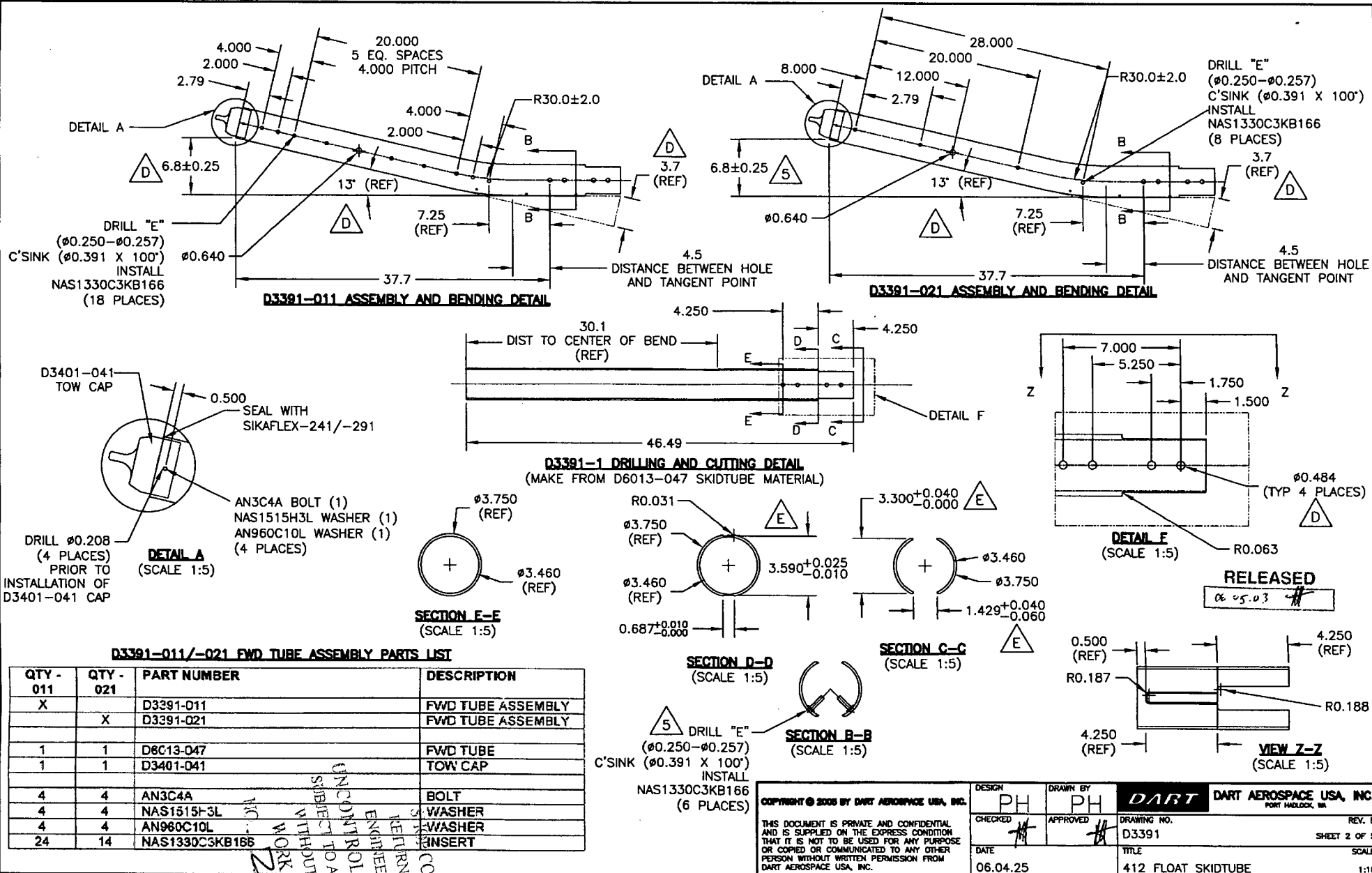
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06-05-03

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E	06.04.25	CHANGE TOLERANCE, EASE MANUFACTURE
D	06.01.23	UPDATE TOLERANCE, CHANGE HOLE SIZE
C	05.09.27	LENGTHEN AFT EXTENSION
B	05.06.10	DRAWING UPDATES
A	05.02.07	NEW ISSUE
DESIGN	PH	DRAWN BY PH
CHECKED	PH	DART AEROSPACE USA, INC. PORT HADLOCK, OH
DATE	06.04.25	DRAWING NO. D3391
		REV. E
		SHEET 1 OF 5
		SCALE
		NTS



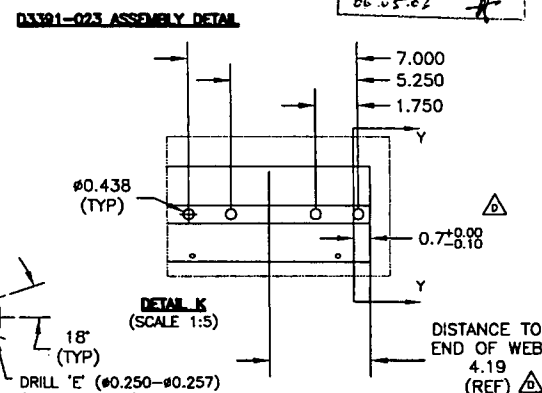
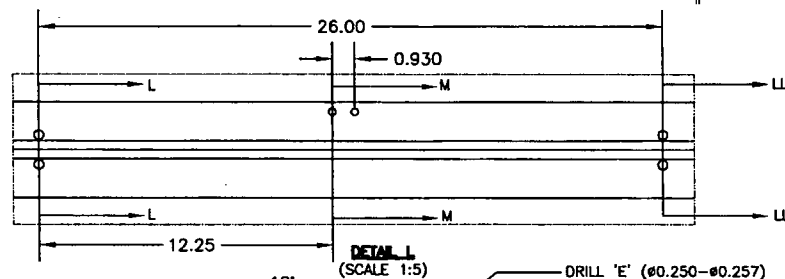
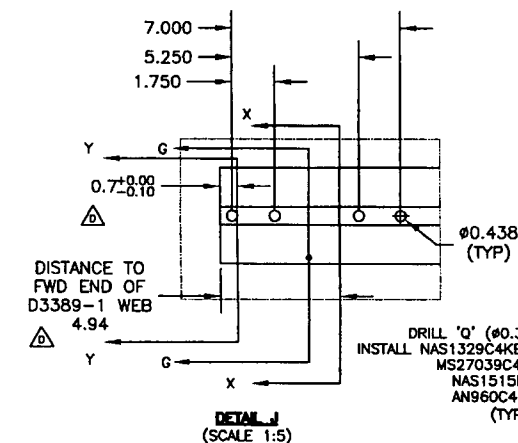
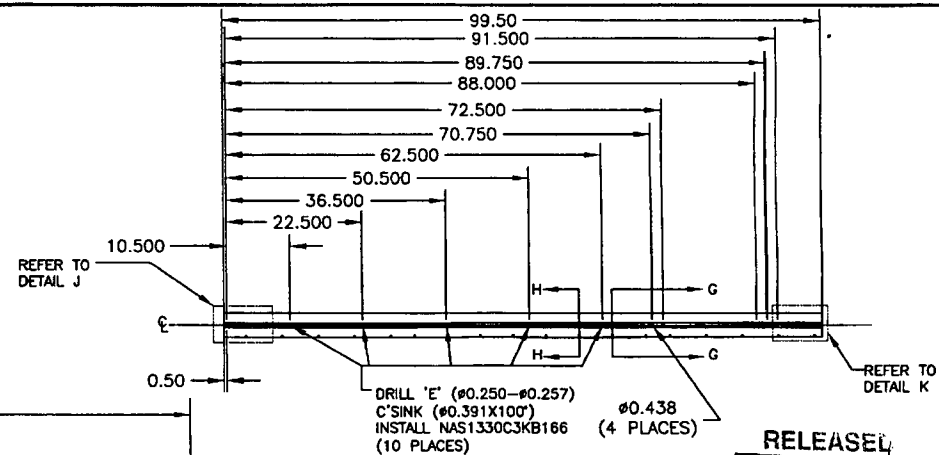
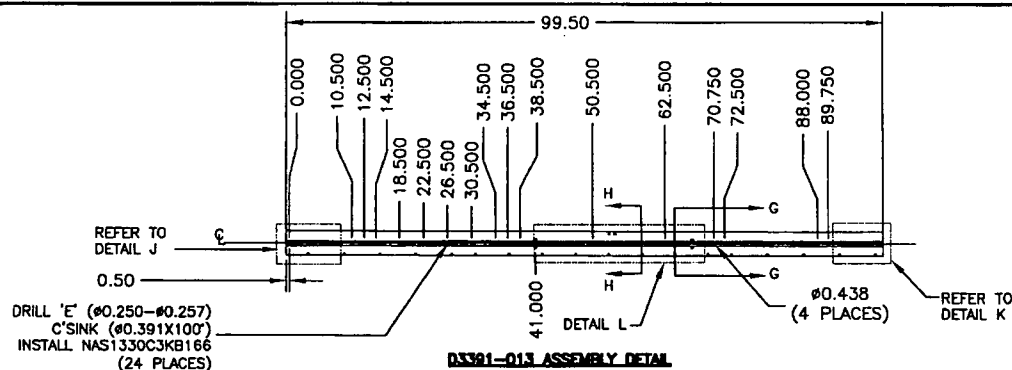
D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X		D3391-011	FWD TUBE ASSEMBLY
	X	D3391-021	FWD TUBE ASSEMBLY
1	1	D6C13-047	FWD TUBE
1	1	D3401-041	TOW CAP
4	4	AN3C4A	BOLT
4	4	NAS1515H3L	WASHER
4	4	AN960C10L	WASHER
24	14	NAS1330C3KB166	INSERT

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 WORK ORDER
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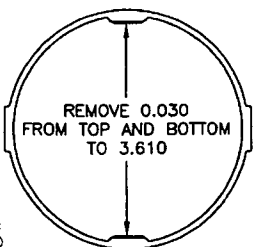
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CHECKED #	APPROVED #	DRAWING NO. D3391	SHEET 2 OF 5
DATE 06.04.25	TITLE 412 FLOAT SKIDTUBE	SCALE 1:10	



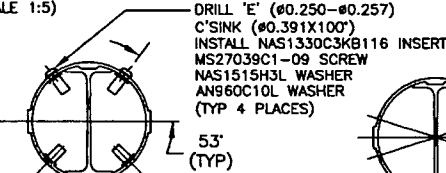
D3391-013/-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 013	QTY - 023	PART NUMBER	DESCRIPTION
X	X	D3391-013	MID TUBE ASSEMBLY
		D3391-023	MID TUBE ASSEMBLY
1	1	D2500-1-100	EXTRUSION
1	1	D3389-1	WEB
24	20	NAS1330C3KB116	INSERT
24	10	NAS1330C3KB166	INSERT
4		NAS1329C4KB140	INSERT
4		NAS1515H3L	WASHER
4		AN960C10L	WASHER
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER
4		MS27039C1-09	SCREW
4		MS27039C4-08	SCREW

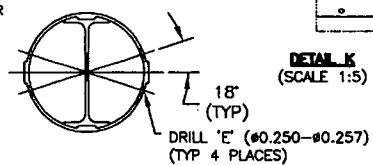
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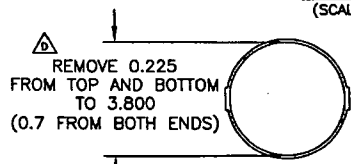
SECTION M-M (SCALE 1:4)



SECTION N-N (SCALE 1:4)



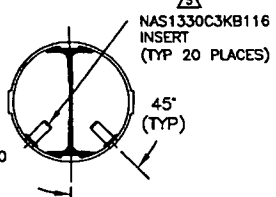
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SECTION Q-Q (SCALE 1:4)



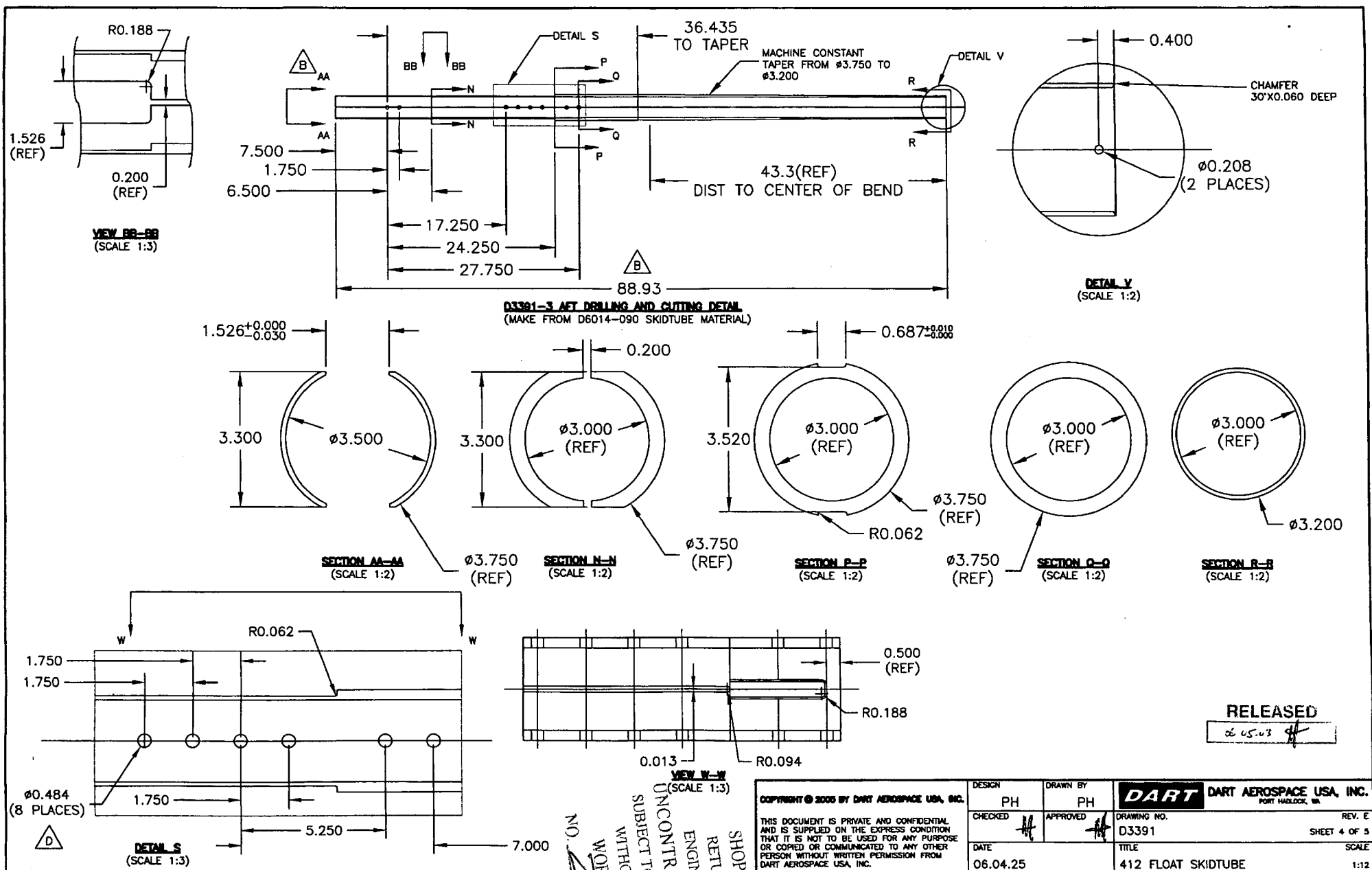
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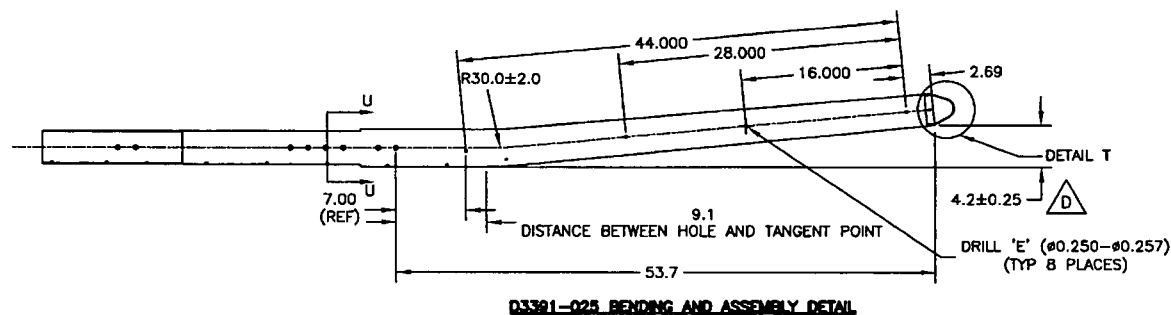
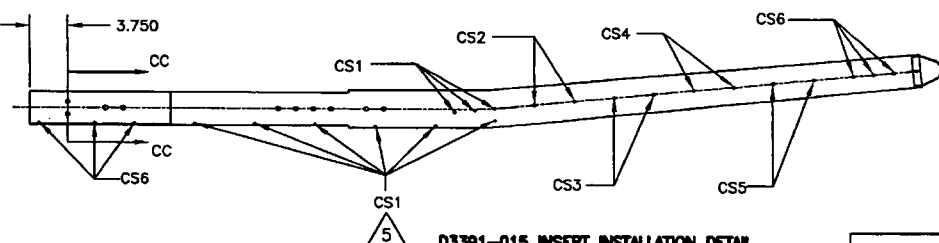
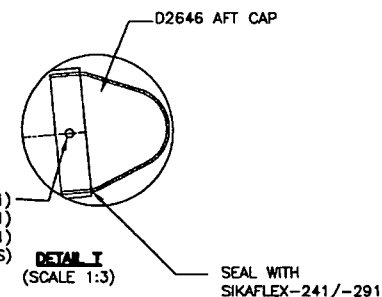
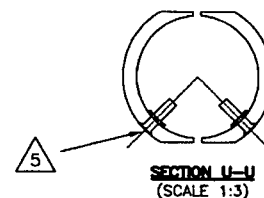
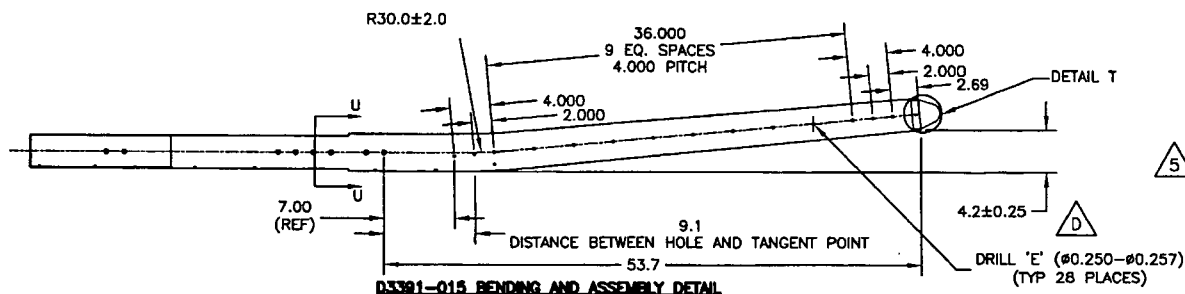


- D3391-013/-023 MID TUBE ASSEMBLY**
- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
 - INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER CS

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28338

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PH	PH	CHECKED	APPROVED	DRAWING NO.	REV. E
				D3391	SHEET 3 OF 5
DATE		TITLE			SCALE
06.04.25		412 FLOAT SKIDTUBE			1:20



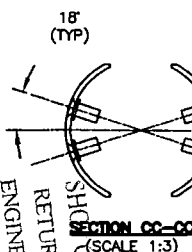


C'SINK AND INSTALL AESS10KBXXX AND/OR
NAS1330C3KBXXX IN HOLES MARKED CS1-CS6 AS
FOLLOWS

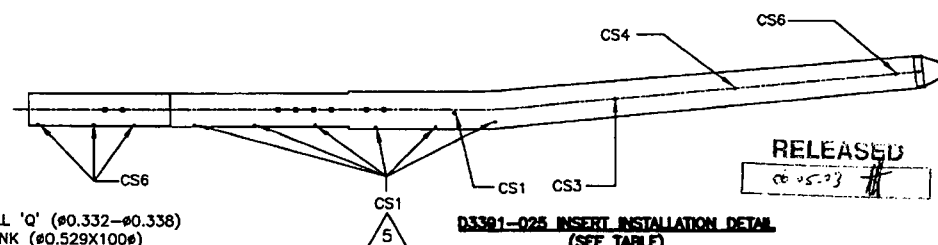
HOLE MARKED	QTY D3391-015	QTY D3391-025	C'SINK	P/N
CS1	18	14	Ø0.425	AESS10KB398
CS2	4	2	Ø0.391	AESS10KB398
CS3	4	2	Ø0.391	NAS1330C3KE316
CS4	4	2	Ø0.391	NAS1330C3KE266
CS5	4	2	Ø0.391	NAS1330C3KE216
CS6	12	8	Ø0.391	NAS1330C3KE166

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X		D3391-015	AFT TUBE ASSEMBLY
	X	D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2646	AFT CAP
18	14	AESS10KB398	INSERT
4	2	NAS1330C3KB316	INSERT
4	2	NAS1330C3KB266	INSERT
4	2	NAS1330C3KB216	INSERT
12	8	NAS1330C3KB166	INSERT
4	2	NAS1330C4KB151	INSERT
2	2	AN3C4A	BOLT
2	2	NAS1515H3L	WASHER
2	2	AN960C10L	WASHER



DRILL 'Q' (#0.332-#0.338)
C'SINK (#0.529X100#)
NAS1330C4KB151 INSERT (1)
(4 PLACES)



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CHECKED	APPROVED	DRAWING NO. D3391	SHEET 5 OF 5
DATE 06.04.25	TITLE 412 FLOAT SKIDTUBE	SCALE 1:12	

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